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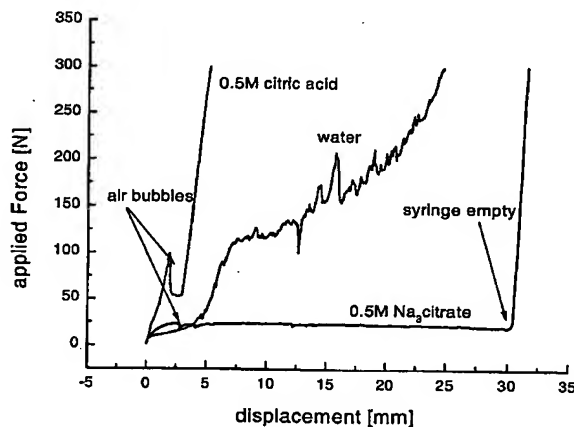
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(54) Title: **IMPROVED CALCIUM PHOSPHATE BONE CEMENTS**



(57) Abstract: In a first aspect, the present invention discloses a self setting calcium phosphate cement comprising: - (i) a powdered component, said powdered component having an average particle size d_{50} of less than 15 μm , and (ii) a calcium phosphate based powder, said powder having an average particle size d_{50} greater than that of the powdered component, said powdered component and said calcium phosphate based powder being suspended in water containing a dissolved zeta potential increasing additive in sufficient quantity to increase the zeta potential of the suspended particles to at least 30 mV, and wherein the zeta potential increasing additive is chosen to be compatible with the setting pH of the same calcium phosphate cement without the zeta potential increasing additive. In a second aspect, the invention discloses a shelf-stable acidic setting cement powder comprising: - (i) a calcium phosphate based powder, and (ii) a powdered compound which, upon addition of water to form a cement paste, retards the cement setting reaction or increases the zeta potential of the resultant suspended particles to at least -30 mV.



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